Amendments to the Specification:

Amend paragraphs on page 5, lines 18, 22, and 28 as follows:

Most of the data compression is the result of discarding image data during quantization or the mapping of the transformed image data to a limited number of possible data values in a quantizer 38. Transform coefficients 42 produced by transformation 36 are input to the quantizer 38 and quantization indices 44 are output and sent to the entropy encoder 40. Referring to FIG. 3, an exemplary transform coefficient 42 ~~60~~ is input to an exemplary quantizer 38 having a uniform quantizer step size 64 (wQ) where w is a weighting factor that may be used to adjust the magnitude of the quantizer step. For example, the quantizer step size may be adjusted as a function of the frequency of the image signal component represented by the input transform coefficient 42 ~~60~~ to take advantage of the contrast sensitivity function (CSF). Weighting factors can be stored in a quantization table 46. In addition to the midpoint uniform threshold quantizer illustrated in FIG. 3, quantizers incorporating, by way of example, non-uniform step sizes, a dead zone, and an output index at the centroid of the step are also used for video encoding.

In the quantizer 38, the value of the transform coefficient 42 ~~60~~ is compared to the values within the limits or bounds of the various quantizer steps and, in the case of the midpoint uniform threshold quantizer, the value of the midpoint of the quantizer step range having bounds bracketing the input transform coefficient 60 is output as the corresponding quantizer index 62. Quantization is a lossy process in which data that more precisely describes a transform coefficient is discarded to produce the corresponding quantization index 44. The quantity of data discarded during quantization depends upon the number of levels and, therefore, the step sizes 64 available in the quantizer 38 to describe inputs between the minimum and maximum transform coefficients. As the magnitude of the steps 64 (wQ) increase, more data are discarded, increasing the compression efficiency and reducing the data rate, but making the reconstructed image an increasingly rougher approximation or more distorted copy of the original.

Amend page 9 line 17 as follows:

$$g(x_{\underline{i}};d_{\underline{i}}) = d_i f_i(x), \text{ if } |d_i f_i(x)| > 1$$

Amend page 10, lines 7 and 14 as follows:

$\lambda_{\underline{i}}$ = low bit rate compensation factor

$\lambda_{\underline{i}}(d_i) = 1$, when $d_i < 1$